**Amendments to the Claims**:

This listing of the claims replaces all previous versions, and listings, of claims in the application.

**Listing of Claims**:

1. (Currently amended) A high performance image projection apparatus, comprising:

a light source having an effective source size and ~~generating at least~~ emitting a principal light ray and an associated bundle of polychromatic light rays; [[and]]

a liquid crystal display (LCD) panel ~~for receiving at least the principal ray and generating an image, the LCD panel having a panel diagonal dimension of such a size that the effective source size is two percent or less than the panel diagonal dimension~~ adapted to form a light pattern in response to the incident polychromatic light rays and applied signals carrying light pattern information; and

an optical lens device positioned to receive and having optical light directing properties to steer the principal light ray and associated bundle of polychromatic light rays for incidence on the LCD panel at substantially the same angle that contributes to formation of the light pattern at a contrast ratio of at least 1000:1.

2. (Previously presented) The apparatus of claim 1 in which the effective source size ranges from about one millimeter to about seven millimeters.

3. (Currently amended) The apparatus of claim 1 in which the LCD panel has a diagonal dimension that is greater than about 50 millimeters.

4. (Currently amended) The apparatus of claim 1 in which the LCD panel has a diagonal dimension that is about 380 millimeters.

5. (Currently amended) The apparatus of claim 1 further including a projection lens for projecting the [[image]] light pattern on a screen at a magnification ratio of less than about 10X.

6. (Original) The apparatus of claim 5 in which the magnification ratio ranges from about 4X to about 10X.

7. (Currently amended) The apparatus of claim 5 in which the projection lens includes [[5]] five or fewer optical lens elements.

8. (Original) The apparatus of claim 1 in which the LCD panel includes amorphous silicon thin film transistors.

9. (Currently amended) The apparatus of claim 1 in which the LCD panel has an operational life of at least 50,000 hours before the [[image]] light pattern displays a substantial color degradation.

10. (Original) The apparatus of claim 1 in which the LCD panel has an SXGA or greater resolution.

11. (Original) The apparatus of claim 1 further including a projection screen and in which the image projection apparatus is a rear screen projector.

12. (Currently amended) The apparatus of claim 1 ~~further comprising~~ in which the optical lens device includes an input Fresnel lens ~~that receives and diffracts at least the principal ray from the light source causing at least the principal ray to propagate through the LCD panel at an optimal ray angle that causes the image to have a contrast ratio of at least 1,000:1~~.

13. (Currently amended) The apparatus of claim [[12]] 1 in which the angle is an optimal ray angle that is in a range of from about zero degrees to about 10 degrees from normal to a major surface of the LCD panel.

14. (Original) The apparatus of claim 12 in which the input Fresnel lens has an optical center and the principal ray enters the input Fresnel lens at a position offset from the optical center.

15. (Currently amended) The apparatus of claim 12 further including an output Fresnel lens that receives the principal ray exiting the LCD panel and ~~diffracts~~ refracts the principal ray such that it exits the output Fresnel lens substantially perpendicular to a major surface of the output Fresnel lens.

16. (Currently amended) The apparatus of claim 1 in which the ~~light source generates~~ bundle of polychromatic light rays ~~that propagate~~ propagates through the LCD panel at a [cone] divergence angle that is less than about ±6 degrees relative to the angle of the principal light ray.

17. (Previously presented) The apparatus of claim 1 in which the light source includes 1, 2, 3, or 4 arc lamps.

18. (Currently amended) The apparatus of claim 17 in which the light source further includes a fold mirror associated with each of the 1, 2, 3, or 4 arc lamps~~, the fold mirrors coacting to direct along parallel pathways light rays propagating from the arc lamps, thereby forming~~ to form a substantially collimated polychromatic light bundle.

19. (Currently amended) The apparatus of claim 18 in which the light source includes more than one arc lamp, and the fold mirrors form a pinwheel-shaped mirror configuration.

20. (Original) The apparatus of claim 18 further including a flyseye lens array light homogenizer system that receives the substantially collimated light bundle and produces homogenized light rays.

Claims 21-30 (Canceled)

31. (Currently amended) The apparatus of claim 1 in which the LCD panel has a diagonal dimension, the light source includes at least one arc lamp, and the effective source size includes an arc gap dimension so that the arc gap dimension is two percent or less than the panel diagonal dimension.

32. (Currently amended) A high performance image projection apparatus, comprising:

a liquid crystal display (LCD) panel receiving polychromatic incident light and video signal information to generate image-carrying light, the LCD panel having a panel size;

a light source emitting a polychromatic light bundle from which the polychromatic incident light received by the LCD panel is derived, the light source having an effective source size and the polychromatic light bundle including a polychromatic principal light ray;

an optical lens element directing the polychromatic light bundle for incidence on the LCD panel such that the polychromatic principal light ray is set at an angle of incidence on the LCD panel; and

the effective source size being ~~very small relative to~~ two percent or less of the panel size and the angle of incidence being set to a value to establish for an image projected by the image-carrying light a contrast ratio of greater than about 1000:1.

33. (Previously presented) The apparatus of claim 32, in which the light source comprises multiple light emitting devices producing light emissions that are optically combined to establish the effective source size.

34. (Currently amended) The apparatus of claim 33, in which the LCD panel has a geometric shape and the polychromatic light bundle emitted by the light source is of generally the same geometric shape as that of the LCD panel.

35. (Currently amended) The apparatus of claim 33, in which the light source further comprises multiple light reflecting elements associated with the light emitting devices, the light reflecting elements coacting to direct polychromatic light rays propagating from the light emitting devices to form a substantially collimated polychromatic light bundle.

36. (Previously presented) The apparatus of claim 32, further comprising a projection lens receiving the image-carrying light to project the image on a screen.

37. (Previously presented) The apparatus of claim 36, in which the projection lens projects the image on a screen at a magnification ratio of less than about 10X.

38. (Previously presented) The apparatus of claim 32, in which the optical element comprises a Fresnel lens that has an optical center and in which the principal ray enters the Fresnel lens at a position offset from the optical center to set the angle of incidence of the principal light ray on the LCD panel.

39. (New) A high performance image projection apparatus, comprising:

a light source having an effective source size and generating at least a principal ray;

a liquid crystal display (LCD) panel for receiving at least the principal ray and generating an image, the LCD panel having a panel diagonal dimension of such a size that the effective source size is two percent or less than the panel diagonal dimension; and

a Fresnel lens that receives and refracts at least the principal ray from the light source causing at least the principal ray to propagate through the LCD panel at an optimal ray angle that causes the image to have an maximized contrast ratio.

40. (New) The apparatus of claim 39 in which the maximized contrast ratio is at least 1000:1.

41. (New) The apparatus of claim 39 in which the effective source size ranges from about one millimeter to about seven millimeters.

42. (New) The apparatus of claim 39 in which the LCD panel diagonal dimension is greater than about 50 millimeters.

43. (New) The apparatus of claim 39 in which the LCD panel diagonal dimension is about 380 millimeters.

44. (New) The apparatus of claim 39 further including a projection lens for projecting the light pattern on a screen at a magnification ratio ranging from about 4X to about 10X.

45. (New) The apparatus of claim 44 in which the projection lens includes five or fewer optical lens elements.

46. (New) The apparatus of claim 39 further including a projection screen and in which the image projection apparatus is a rear screen projector.

47. (New) The apparatus of claim 39 in which the angle is in a range of from about zero degrees to about 10 degrees from normal to a major surface of the LCD panel.

48. (New) The apparatus of claim 39 in which the Fresnel lens has an optical center and the principal ray enters the input Fresnel lens at a position offset from the optical center.

49. (New) The apparatus of claim 39 further including an output Fresnel lens that receives the principal ray exiting the LCD panel the angle and refracts the principal ray such that it exits the output Fresnel lens substantially perpendicular to a major surface of the output Fresnel lens.

50. (New) The apparatus of claim 39 in which the light source includes 1, 2, 3, or 4 arc lamps.

51. (New) The apparatus of claim 50 in which the light source further includes a fold mirror associated with each of the arc lamps, the fold mirrors coacting to direct along parallel pathways light rays propagating from the arc lamps, thereby forming a substantially collimated light bundle.

52. (New) The apparatus of claim 51 in which the fold mirrors form a pinwheel shaped mirror configuration.

53. (New) The apparatus of claim 51 further including a flyseye lens array light homogenizer system that receives the substantially collimated light bundle and produces homogenized light rays.

54. (New) The apparatus of claim 39 in which the light source includes at least one arc lamp and the effective source size includes an arc gap dimension that is two percent or less than the panel diagonal dimension.

55. (New) A high performance image projection apparatus, comprising:

a liquid crystal display (LCD) panel receiving incident light and video signal information to generate image-carrying light, the LCD panel having a panel size;

a light source emitting a light bundle from which the incident light received by the LCD panel is derived, the light source having an effective source size and the light bundle including a principal light ray;

a Fresnel lens having an optical center and receiving the light bundle with the principal ray offset from the optical center, the Fresnel lens directing the light bundle for incidence on the LCD panel and setting an angle of incidence of the principal light ray on the LCD panel; and

the effective source size being no greater than two percent of the panel size and the angle of incidence being set to a value to establish for an image projected by the image-carrying light a contrast ratio of greater than about 1000:1.

56. (New) The apparatus of claim 55, in which the light source comprises multiple light emitting devices producing light emissions that are optically combined to establish the effective source size.

57. (New) The apparatus of claim 55, in which the LCD panel has a geometric shape and the light bundle emitted by the light source is of generally the same geometric shape as that of the LCD panel.

58. (New) The apparatus of claim 56, in which the light source further comprises multiple light reflecting elements associated with the light emitting devices, the light reflecting elements coacting to direct light rays propagating from the light emitting devices to form a substantially collimated light bundle.

59. (New) The apparatus of claim 55, further comprising a projection lens receiving the image-carrying light to project the image on a screen.

60. (New) The apparatus of claim 59, in which the projection lens projects the image on a screen at a magnification ratio of less than about 10X.